



Central and Southeast KS Spring Spotter Newsletter 2007

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By: Chris Jakub, General Meteorologist

Snow accumulated 12.1 inches in Chanute—the annual average is 16.8 inches.

this intensity affecting Southern Kansas are extremely rare. Typically the stronger and more mature winter storm systems affect locations north and east of Kansas, however this was not the case for this particular day across South-

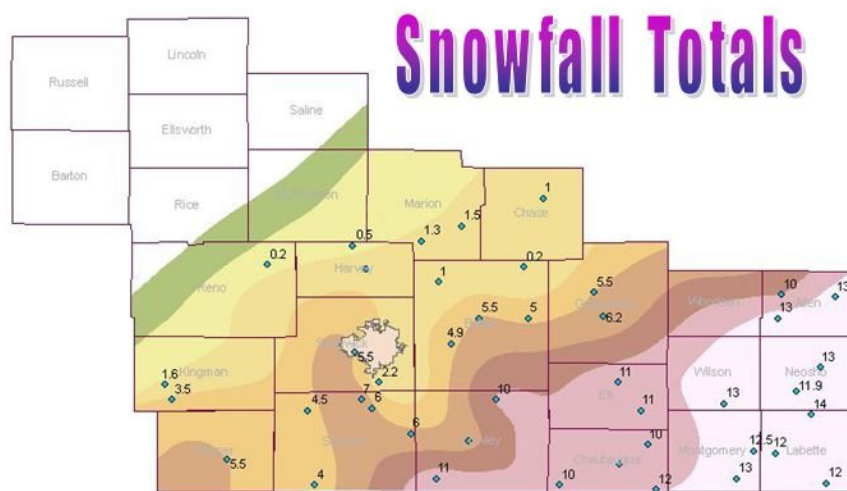


Figure 1: Impressive snowfall totals for November 30th, 2006.

east Kansas. Several locations reported over one foot of snow, See snowfall total map (Figure 1).

The National Weather Service in Wichita Kansas issues [Hazardous Weather Outlook](#) products with graphical color coding to highlight the weather hazard areas. The Hazardous Weather Outlook is a great planning tool for anyone interested in the weather problem of the day or next couple of days. The legend (**Figure 2**) shows the hazard scale levels and associated color schemes. This powerful winter storm prompted the National Weather Service in Wichita, KS to issue its first and only **Very Significant Hazard Level 5** rating.

The picture below left (**Figure 3**) was a water vapor satellite image taken during the winter event. Water vapor imagery is a valuable tool for weather analysis and forecasting, because it represents flow patterns of the upper troposphere. Water vapor satellite imagery displays the water vapor concentration in the atmospheric layer generally between 4000 to 9000 meters above the surface of the earth. In this water vapor image, bright red and yellow areas indicate low amounts of water vapor and milky grey colors indicate high concentrations. Bright blue colors correspond to high level clouds.

The picture below-right (**Figure 4**) is a regional radar image showing the areas of very heavy snow across the central plains. Numerous Winter Storm Warnings were hoisted by the local National Weather Service offices well in advance.

Hazard Scale	
5: Very Significant	
4: Significant	
3: Medium	
2: Small	
1: Minimal	
0: NIL	

Figure 2:
Hazard
Scale.

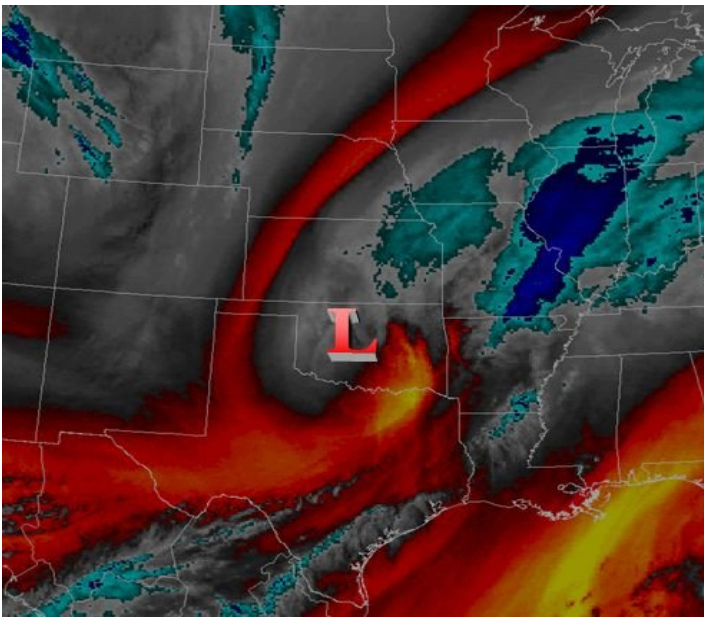


Figure 3: Storm System Depicted by Water Vapor Satellite Imagery.

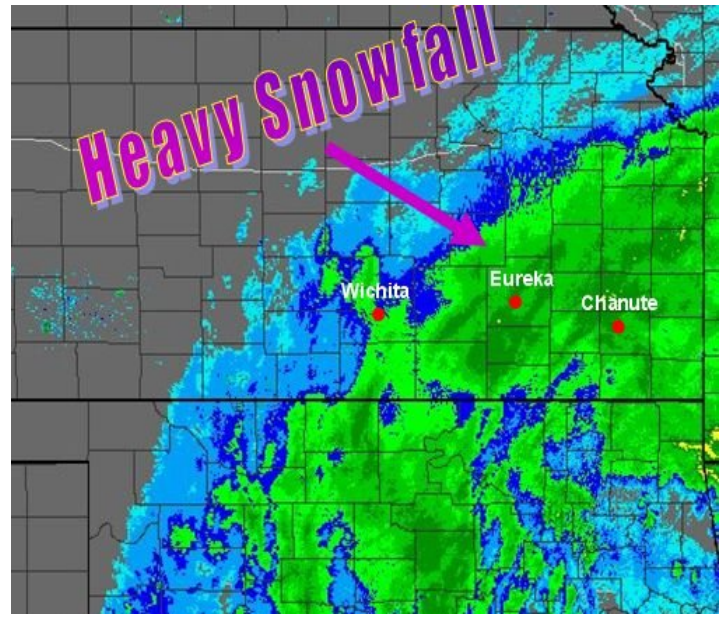


Figure 4: Heavy Snow Depicted by Regional Radar Imagery.

Man, We Received A Lot Of Snow This Winter (Or Did We?)!

By: Eric Schminke, Meteorologist

To some residents in South-Central and Southeast Kansas, there was a considerable amount of snow during the winter of 2006-07. Their observations are understandable. The following are examples that reinforce this sentiment: All snowfalls are in inches.

South-Central Kansas:

	Winter 2006-07	Winter 2005-06	Winter 2004-05
Wichita	17.0	9.2	7.3
Newton 2SW	17.4	7.5	8.3
Winfield 4E	17.2	7.4	5.8

Southeast Kansas:

Fredonia	22.0	6.6	0.0
Independence	19.0	6.8	0.0
Parsons 2NW	23.5	4.3	1.5

In Central Kansas, the trend wasn't nearly as well-defined. In fact, for some locations, the trend was actually the reverse from the previous two winters. The following are examples of snowfall for the past 3 winters in Central Kansas:

	Winter 2006-07	Winter 2005-06	Winter 2004-05
Cassoday	18.0	8.0	12.7
Lincoln 1ESE	19.0	15.5	15.5
Great Bend	7.0	13.1	10.9

In terms of “normalcy”, how did winter 2006-07 compare to the 1971-2000 period, the most recent 30-year period for which normals have been computed?

For Wichita, computed normal snowfall for 1971-2000 is 16.8 inches, so the 2006-07 total was actually very close to normal. For Lincoln 1ESE, normal snowfall for the period 1971-2000 is 19.3 inches, so their 2006-07 total was also very close to normal.

However, the fact that most of South-Central and Southeast Kansas received noticeably greater snowfall in 2006-07 as compared to 2005-06 does prompt some discussion—*especially in Southeast Kansas*.

During **winter 2005-06**, a teleconnection known as the **El Nino Southern Oscillation (ENSO)** was **neutral**, meaning that sea surface temperatures in the Eastern Equatorial Pacific were very close to normal. This translates into a more northerly positioning of the upper-level jet stream, thereby **enabling winter storms to assume a more northerly track across the Upper Midwest**.

Most locations across Central and South-Central Kansas received near normal snowfall for the 2006-2007 winter. However, Southeast Kansas did receive above normal snowfall, although as a whole it was not record setting.

During **winter 2006-07**, the **ENSO signal assumed a positive variant**. That is, an **El Nino event occurred**, meaning that sea surface temperatures in Eastern Equatorial Pacific became warmer than normal. In fact, from September to December, sea surface temperatures in this part of the Pacific were around 1.0 degree above normal.

Translation: Increased tropical thunderstorm activity over the Eastern Equatorial Pacific, thereby enabled the upper-level jet stream axis to shift further south, orienting from the Desert Southwest east across the Southern Plains.

This would enable any **winter storms that developed to assume a more southerly track**, meaning that **Southern Kansas would experience adverse winter weather more frequently**.

The monthly snowfall bears this out. In January, **Wichita** measured **9.5 inches**, the **11th greatest January snowfall** on record. **Winfield** measured **7.0 inches** in both December and January, the **6th and 11th greatest snowfalls** for the two months, respectively. In December, **Parsons 2NW** measured a **record-setting 14.0 inches**. Their climate record spans an 81-year period.

So although the winter of 2006-07 didn't gain admission into the "Top-10 Conference" in terms of greatest snowfall, many towns did experience a truly noticeable increase in comparison to winter 2005-06, especially in Southeast Kansas. However, one needn't take too long a trip in a time machine down Memory Lane to notice comparable snowfalls. Just four winters ago, in 2002-03, Winfield 4E recorded their greatest seasonal snowfall ever in a continuous climate record spanning 107 years: 28.5 inches. That same winter, Wichita measured 25 inches at Mid-Century Airport, 24.9 to be exact; the 15th greatest over a 119-year climate record. In southeast Kansas, Independence measured 17.2 inches.

In summation, **Southeast Kansas did receive above normal snowfall this past winter, but as a whole it wasn't record-setting**. The rest of the area was actually fairly close to normal. In fact, it really hasn't been that long since one experienced a truly snowy winter in Central, South-Central, or Southeast Kansas. It is very likely that many residents were "spoiled" by the exceptionally warm winter of 2005-06, when much of the region experienced it's warmest January on record. We shall see if this convective season proves as "entertaining" as this most recent winter.

Need Weather Information?

Try "weather.gov/wichita"

By: Robb Lawson, Meteorologist

Averaging around 4,000 hits a day, Wichita's National Weather Service web site continues to gain popularity. Whether you want to see what warnings are in effect, or curious as to how much rain fell last month, you'll find it at weather.gov/wichita.

The map on the front page makes it easy to see what **watches, advisories or warnings** are in effect. By clicking on this map, you can quickly obtain the **7 day forecast** along with **current conditions** for a specific location.

The **navigation bar** on the left hand side allows you to browse some of our more popular pages including our **area forecast discussion**, the **hazardous weather outlook** and **live radar**. In addition, under the "Top News of the Day" you can view recent news, including **weather stories** on our more **significant weather events**. Under the **climate** section on the left hand navigation bar you will find **historical weather data** for a number of sites across Central, South Central and Southeast Kansas.

If you have any questions pertaining to weather or are having trouble finding specific weather data, you can **email us** via the "**webmaster**" link under the "**Contact Us**" section.

NOAA's National Weather Service Weather Forecast Office
Wichita, Kansas

Home Site Map News Organization

Local forecast by "City, St" or Zip Code
City, St

Current Hazards
Watches / Warnings
U.S. Hazards
Hurricane Info
Graphical HWO

Current Conditions
Observations
Satellite Images
Rivers & Lakes AHS
Precip Estimate
Snow Cover

Radar Imagery
Local Radar
Nationwide

Forecasts
Local Area
Aviation
Fire Weather
Graphical
Model Guidance
Forecast Discussion

Rivers / Hydrology
AHS / River Info
Hydro Products
River Summary

Climate
Local
National
More...

Weather Safety
StormReady
Preparedness
Weather Radio
EMAD
SKYWARN
Emergency Mngrs
Winter Weather

Local Information
Our Office
Coop Observer
Our Mission
Spotter Newsletter
Local AMS/NWA

Top News of the Day
2007 Storm Fury on the Plains - weather and safety presentation schedule
Archived Weather Stories...

Click on the map below for the latest forecast.

Read watches, warnings & advisories
Flood Statement
Hazardous Weather Outlook

Latest Conditions in Wichita - Mid-Century, KS
Mar 24
8:53 pm
Overcast
68°F
(20°C)

Choose Your Front Page City
Select A City:

Top Items of the Day
On this Day in Weather History...
In 1912, Kansas City had its greatest snowfall, with 25 inches accumulating in 24 hours.
Summary of Recent Storm Reports issued at: 11:40PM Fri Mar 23
Heavy Rainfall Soaks Southern Kansas (3/21/2007)
Heavy Rainfall up to 6 inches soaked portions of Southern Kansas on March 20th, 2007. Numerous flood warnings were issued for impassable roadways. (Archive of all Weather Stories)

Join “CoCoRaHS” Today!

www.cocorahs.org

Whether you are a storm spotter, or just wanting to know if you need to water your yard today, you will find what you are looking for on **Wichita’s National Weather Service web page!**

We at the National Weather Service office in Wichita, KS would like to offer you an opportunity to provide more weather information for your location. **CoCoRaHS** is an acronym for the Community Collaborative Rain, Hail and Snow Network. CoCoRaHS is a unique, non-profit, community-based network of volunteers of all ages and backgrounds working together to measure and map precipitation (rain, hail and snow). The focus for this program is to provide the highest quality data for natural resource, education and research applications. One of the main goals is to increase the density of precipitation data available throughout the country by encouraging volunteer weather observing. **At this time, we are only looking for individuals to report daily precipitation amounts.**

The network originated with the Colorado Climate Center at Colorado State University in 1998. In the years since, CoCoRaHS has expanded rapidly with over 2,500 observers in twelve states. This is a community project. Everyone can help, young, old, and in-between. The only requirements are an enthusiasm for watching and reporting weather conditions, and access to the internet.

CoCoRaHS volunteers take measurements of precipitation from as many locations as possible. These precipitation reports are then recorded on the website www.cocorahs.org. The data are then displayed and organized for many end users to analyze and apply to daily situations ranging from water resource analysis and severe storm warnings to neighbors comparing how much rain fell in their backyards. A handful of CoCoRaHS data users include: The National Weather Service, other meteorologists, hydrologists, emergency managers, city utilities (water supply, water conservation, storm water), insurance adjusters, USDA, engineers, mosquito control, ranchers and farmers, outdoor & recreation interests, teachers, students, and neighbors in the community.

One of the main goals of CoCoRaHS is to increase the density of precipitation data available throughout the country by encouraging volunteer weather observing.

By providing daily observations, volunteers can help to fill in a piece of the weather puzzle that affects many across your area in one way or another. If you are willing and able to help and are interested in joining, you can go to the CoCoRaHS website <http://www.cocorahs.org> and click on the **Join CoCoRaHS link.**

Hail Stone Sizing Chart	
Penny	0.75 inches
Nickel	0.88 inches
Quarter	1.00 inches
Half Dollar	1.25 inches
Walnut	1.50 inches
Golf Ball	1.75 inches
Hen Egg	2.00 inches
Tennis Ball	2.50 inches
Baseball	2.75 inches
Tea Cup	3.00 inches
Grapefruit	4.00 inches
Softball	4.50 inches

Send Us Your Weather Photos or Videos!

Wichita.Stormpics@noaa.gov

We at the National Weather Service would like for you to send us any interesting weather photos you take. The photos can range anywhere from **tornadoes to ice storms—skies the limit**. We are interested in the beauty and any unfortunate devastation that occurs in your area. Many times with major events like the one in Great Bend or Neosho County, the NWS conducts our own damage surveys, but we would still like to see what you have captured. Keep in mind, that any pictures you send to the NWS may be used in weather stories on the internet, or in presentations to the public. **Proper credit will be given to the photographer.** Please let us know **when and where the image was taken**, and any other pertinent information you feel would describe the situation. Lastly, if you happen to catch any interesting weather on video, we would like to see and possibly utilize that as well. **Send any videos on a CD or VHS tape to:**

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“The National Weather Service (NWS) provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, for the protection of life and property and the enhancement of the national economy. NWS data and products form a national information database and infrastructure which can be used by other governmental agencies, the private sector, the public, and the global community.”